

AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): A porous insulating film consisting essentially of a highly heat resistant polyimide resin film having a fine porous structure wherein:

a) fine continuous channels reaching to both surfaces of the film in a nonlinear fashion have a mean pore size of ~~0.04~~ 0.05 – 5  $\mu\text{m}$  in the center and both surfaces of the film and a porosity of 15 – 80%; and

b) the polyimide resin film consists essentially of a polyimide obtained from the combination of at least one tetracarboxylic acid component and a diamine component - ; and

c) the film has a thickness of 5 – 150  $\mu\text{m}$  and a resistance to passage of air of from 30 sec/100 cc to 2000 sec/100 cc.

Claim 2 (original): A porous insulating film according to claim 1, wherein the mean pore size is 0.05–1  $\mu\text{m}$ .

Claim 3 (original): A porous insulating film according to claim 1, wherein the porosity is 30-80%.

Claim 4 (original): A porous insulating film according to claim 1, which has a thickness of 5-150  $\mu\text{m}$ .

Claim 5 (previously canceled).

5

Claim ~~5~~ (original): A porous insulating film according to claim 1, which is fabricated by a film casting method.

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Claim ~~6~~ (original): A porous insulating film according to claim 1, wherein the dielectric constant is no greater than 2.5.

Claims 8-9 (previously canceled).

<sup>8</sup>  
Claim ~~10~~ (currently amended): A porous insulating film consisting essentially of a highly heat resistant polyimide resin film having a fine porous structure wherein:

- a) fine continuous channels reaching to both surfaces of the film in a nonlinear fashion have a mean pore size of  $0.01 \pm 0.05$  - 5  $\mu\text{m}$  in the center and both surfaces of the film; and
- b) the polyimide resin film consists essentially of a polyimide obtained from the combination of at least one tetracarboxylic acid component and a diamine component and has
  - (i) a thickness of 5 - 100  $\mu\text{m}$ ,
  - (ii) a resistance to passage of air of from 30 sec/100 cc to 2000 sec/100 cc,
  - (iii) a heat resistance temperature of at least 200°C and
  - (iv) a heat shrinkage of greater than  $\pm 1\%$  at 105°C.

Claim 11 (previously canceled).

Claims 12-14 (canceled).

<sup>9</sup>  
Claim ~~15~~ (previously added): A battery separator comprising a porous insulating film according to claim 10.

<sup>10</sup>  
Claim ~~16~~ (previously added): A porous insulating film according to claim 1 or ~~10~~,<sup>8</sup> wherein the tetracarboxylic acid component is selected from a biphenyltetracarboxylic dianhydride, pyromellitic dianhydride and a benzophenonetetracarboxylic dianhydride.

<sup>12</sup>  
Claim ~~17~~ (previously added): A porous insulating film according to claim 1 or ~~10~~,<sup>8</sup> wherein the diamine component is selected from a phenylenediamine or a diaminodiphenylether.

<sup>7</sup>  
Claim ~~18~~ (previously added): A porous insulating film according to claim 1, wherein the pores in the porous structure are arranged in the film substantially parallel to the film surfaces.

11

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Claim ~~19~~ (previously added): A porous insulating film according to claim ~~16~~, wherein the biphenyltetracarboxylic dianhydride is 3,3',4,4'-biphenyltetracarboxylic dianhydride.

13

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Claim ~~20~~ (previously added): A porous insulating film according to claim ~~10~~, wherein the pores in the porous structure are arranged in the film substantially parallel to the film surfaces.